

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RE APPLICATION OF: Weller et al.

EXAMINER:

A. Chakrabarty

SERIAL NO.:

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FOR: METHO

METHOD FOR ANALYSIS OF OLIGONUCLEOTIDE ANALOGS

Mail Stop RCE Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Interview Summary

The applicants thank the Examiner for granting a telephonic interview regarding the above-referenced application on August 29, 2003. In attendance were the undersigned and coinventors Dwight D. Weller and Todime Muralimohan Reddy. This written summary is submitted in accordance with MPEP §713.04.

- (A) No exhibits were shown.
- (B) Independent claim 1 was discussed.
- (C) The primary cited reference, Summerton *et al.*, U.S. Patent No. 5,034,506, was discussed at length. The secondary references (Connolly, Gilmanshin, and Hearn) may have been discussed briefly.
- (D) In response to the Examiner's comments, Applicant's agent, LeeAnn Gorthey, proposed the following amendments to claim 1: amending the preamble to recite "separating a population of <u>duplexes...</u>"; specifying that the analyte molecules are "composed of linked subunits of which at least <u>90</u>% are uncharged", and specifying that the probe is a "nucleic acid or <u>fully</u> charged nucleic acid analog".
- (E) The Applicants emphasized that the method employs (substantially) uncharged analyte molecules and a charged probe molecule. The applicants also emphasized that the method

involves separation of duplexes from each other. The applicants pointed out that in the ion exchange separation method shown in the '506 patent, conditions were such that duplexes could not stably exist. The applicants also noted that the method of determining binding of an oligomer to its complementary DNA, described in the '506 patent, was done in solution, not on a separation medium, and did not involve separation of oligomers or duplexes.

The Examiner also pointed to the affinity purification method described in the '506 patent. Applicants noted that this method employed charged analytes (DNA molecules) and an uncharged probe.

(G) The Examiner indicated that the amendments noted in (D) would be received favorably. and would overcome the objections in view of the '506 patent. The Examiner also stated that further search of the amended claim(s) may be necessary.

Enclosed herewith is an amendment and a Request for Continued Examination, along with the necessary fees.

No further fees are believed due with this communication. However, the Commissioner is hereby authorized and requested to charge any deficiency in fees herein to Deposit Account No. 50-2207

Respectfully submitted,

LeeAnn Gorthev

Registration No. 37,337

Correspondence Address:

PAYOR NUMBER 22918 PHONE: (650) 838-4403

Fax: (650) 838-4350